TITLE: EVALUATION OF THE ANTIMICROBIAL RESISTANCE PROFILE OF *Providencia stuartti* ISOLATED FROM SEVERAL INFECTIONS IN PATIENTS OF A HOSPITAL IN SOUTHERN BRAZIL.

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ABSTRACT:

The advent of antimicrobials allowed the treatment of several infections caused by pathogenic bacteria, however, the incorrect use of these compounds allowed the emergence of several strains resistant to antimicrobials commonly used in the treatment of infections in humans, limiting the choice of antimicrobials available for the treatment of these infections. *Providencia stuartii* is a Gram-negative bacteria of the family Enterobacteriaceae considered an opportunistic pathogen and frequently reported in urinary tract infections, especially in catheterized patients. The present study aimed to evaluate the resistance profile of 112 *P. stuatii* isolated from patients admitted to Londrina University Hospital from November 2011 to November 2017, following the recommendations of the Clinical and Laboratory Standards Institute (CLSI). In this way, 11 antimicrobials belonging to the classes of aminoglycosides, cephalosporins, carbapenems, quinolones and sulfonamide were used. The isolates were identified using the VITEK® 2 system. Their resistance profile was evaluated by the disk-diffusion technique. It was observed that 98 (87.5%) of the isolates were resistant to amikacin, ciprofloxacin 112 (100%), meropenem 35 (31.25%), ertapenem 38 (33, 92%), imipenem 41 (36.60%), piperacillin/tazobactam 36 (32.14%), cefepime 12 (10.71%), ceftazidime 25 22.32%), to sulfamethoxazole/trimethoprim 112 (100%), ampicillin/sulbactam 112 (100%) and norfloxacin 110 (98.21%). It was verified that these microorganisms are more sensitive to the antibiotics meropenem, ertapenem, imipenem, piperacillin/tazobactam, ceftazidmas and cefepime, since there were not many isolates resistant to these antimicrobials. While antimicrobials ciprofloxacin, sulfamethoxazole / trimethoprim, ampicillin/sulbactam, amikacin, norfloxacin, several resistant isolates were obtained. All 112 (100%) isolates presented multiresistance, as they showed resistance to three or more classes of antimicrobials. It is concluded with the present study that although the strains presented resistance to several classes of antimicrobials, there are antibiotics that become more appropriate due to the sensitivity of these strains, such as carbapenemics and cephalosporins of the 3rd and 4th generation, but their use must be correct, in order to avoid selection of resistant strains.

Keywords: pathogenicity, public health, bacterial resistance, hospital infections

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